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# Electronic Books and Emergent Literacy Development

Joseph G. Juzwiak

*The College at Brockport*, [jjuzwiak@hotmail.com](mailto:jjuzwiak@hotmail.com)

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Electronic Books and Emergent Literacy Development

By

Joseph Juzwiak

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## **CHAPTER ONE: INTRODUCTION**

### **Background**

Electronic books (e-Books) are a product that has exploded in popularity within the past ten years. This type of technology has evolved over the years from floppy disks to CD-ROMs to handheld electronic pocket books with built in software so books are just a click away. Having this new technology available has sparked a growing number of educational researchers to further investigate e-Books and their effectiveness in literacy instruction, and more specifically, emergent literacy. As more and more school districts push for technology to be integrated into curricula, e-Books are becoming a go-to resource for classroom teachers. Having worked in various elementary schools and being in a large number of classrooms during three years of substitute teaching, I have seen how different teachers chose to integrate technology into their day-to-day instructional practices. Today, I have a fourth grade classroom of my own. As I look to implement lessons that I personally designed, I am now faced with the challenge of finding ways to incorporate technology in my classroom. As nation and state-wide initiatives push for required technology integration, teachers are turning to e-Books in their literacy instruction as a solution to fulfill this need. However, there is a lack of consensus as to how well e-Books aid in the emergent literacy skills of comprehension and decoding.

### **Purpose of Study**

The purpose of this study, then, is to use e-Books as a means of technology integration in classroom, and, more specifically in the area of emergent literacy, instruction. For this study I focused on answering the research

question: How do e-Books support emergent readers' literacy development? To further explore this question I researched the kinds of multimodal features that are included in e-Books in order to determine whether e-Books are supporting or hindering comprehension and decoding. This study also looks at the effect reading e-Books have on students' motivation to read.

## **Rationale**

In recent years school districts nationwide have been pushing for teachers to use technology to support literacy instruction. This is evident in both district policies and state learning standards. It has become less of an option and more of a requirement. According to the No Child Left Behind Act (NCLB), states are required to integrate technology in order to receive funds. This is noted by government in the state's application for funds which requires it to contain "a description of how the State Education Agency will ensure ongoing integration of technology into school curricula and instructional strategies in all schools, so that technology will be fully integrated into curricula and instruction by Dec. 31, 2006" (Technology Integration, 2004, p.1). To facilitate this new initiative e-Books have become a popular approach for meeting these standards. However, there is a lack of consensus regarding e-Books as Zucker, Moody, and McKenna (2009) points out as:

- a. the extent to which electronic books actually support different aspects of students' literacy development;
  - b. which students may benefit from use of this technology; and
  - c. which "supportive" features within e-books improve literacy outcomes.
- (p. 49)

As with all technologies the issue becomes not what can be done but what should be done. E-Books are indicating that technology is becoming more

specialized and are creating their own unique environment for literacy. If you think of an automobile becoming a new form of transportation and all its little unique features (e.g. windshield wipers and dome lights), you can draw similarities to an e-Book being a new form of computer with its own distinctive set of features which allow it to enhance a student's literacy development (Labbo & Reinking, 1999).

### **Organization of Thesis**

This research paper is composed of five chapters. Each chapter has its own unique and specific purpose. Chapter one is used to define problems and introduce you to the current research on the topic. Chapter two provides the reader with a theoretical framework in the form of a literature review. This will focus on previous research and studies conducted in the field of e-Books and how they support or hinder emergent readers' literacy development. Chapter three breaks down the research design. In this chapter participant information, data collection and analysis, and procedures will be discussed. Chapter four reveals the findings of the study after the data has been collected and analyzed. Chapter five provides any implications of the study results.

### **Summary**

This chapter focuses on introducing you to this research study. It provides you with background on e-Books and the growing demand of technology integration in daily classroom activities. This background serves as this study's purpose to research whether e-Books can be used as a tool to meet these demands while supporting students' literacy development. The following chapter will provide the reader with previous research that has been done to support this study.



## **CHAPTER 2: REVIEW OF LITERATURE**

### **Introduction**

Our nation is becoming more and more reliant on technology to carry out daily activities. Almost anything can be done electronically; from reading a book, to paying bills, to having a video conference with another corporation on the other side of the world, the possibilities seem endless. The government has taken notice and has created an initiative for schools nationwide to begin to incorporate technology in daily classroom activities. One of the easiest ways to do this is to use electronic books (e-Books) as a means of integration.

As we mindlessly give our students these digital texts do we ever stop to wonder if we are doing them more harm than good? Yes, it is a fact that this type of technology integration can be a motivator for reluctant readers; but, for those young beginning readers is this really the right tool for instruction?

Research suggests there is a lack of consensus as to how well e-Books aid in the emergent literacy skills of comprehension and decoding. This literature review examines research about the efficacy of e-Books in emergent literacy and attempts to identify commonalities and gaps, while also suggesting some future implications. As I read articles and reviewed the data they presented I had to make decisions on whether to include or exclude the research being reviewed. In order to be included in my research an article had to offer me some insight into how well emergent literacy students performed tasks using e-Books. This included articles that provided me with both quantitative and qualitative data about the effectiveness of instruction using e-Books, as well as articles that presented me with information about e-Books and strategies used with them to help me gain a

better-rounded knowledge base of this new technology. It is important to have looked at numerous studies for the purposes of this literature review as no sample population is going to yield identical results. Each sample was a little different in their method, who was involved, and this was shown in their results. However, perhaps the more important piece was having read into more about e-Books themselves since without some sort of knowledge base the reader will not be able to fully comprehend what is happening in these studies.

This chapter begins by looking at types of e-Books, what constitutes an e-Book and offering some background. This chapter will then explain how e-Books may or may not be beneficial to schools, followed by an introduction to emergent literacy and e-Books role in this educational field. In reviewing the current literature on the topic this study found that e-Books can have significant impact on emergent readers' comprehension and decoding outcomes. There were also suggestions in the literature that some e-Book features can hinder comprehension.

## **Electronic Book**

### *Types of e-Books*

When reviewing e-Books it is crucial to have an understanding of what exactly you are looking at or working with. E-Books come in multiple forms; however, as I conducted this literature review two specific types of e-Books were discussed or used more than others.

The first is an educational e-Book which is aimed at promoting a child's emergent literacy. These books are created by educational professionals with text features to support print awareness when working with the software. For example, in the educational e-Book in Korat and Or's (2010) study the "text was

highlighted congruently with the narrator's reading (at the word level), in order to help children connect between the written and the spoken text and thus promote reading ability and concept of print" (p. 142). It is an extra feature such as the one mentioned above that separates the educational from the commercial e-Book.

Commercial e-Books, according to de Jong and Bus (2003), tend to emphasize multimedia, colors, sounds, and graphics, but are not necessarily suitable for promoting young children's language and literacy. For example, not all commercial e-Books will have the feature that highlights the text to help a child's print awareness as did the educational one in the Korat and Or (2010) study mentioned above. Another feature commonly discussed that commercial e-Books tend to not have is a dictionary feature where children can highlight specific words and see a definition. This feature is, however, prevalent in educational e-Books.

### *Definition*

Perhaps the most common, and often misunderstood, word in these articles is electronic book (e-Book). Definitions of this technology are often broad but for the purposes of this research study I'll attempt to make this term clearer in the mind of the reader. Zucker, Moody, and McKenna (2009) defined e-Books as a "form of electronic text that contains key features of traditional print books, such as a central topic or theme and pages that 'turn,' but e-books may also contain digital enhancements that make the reading experience qualitatively different, and perhaps more supportive" (p.49). While I fully agree with and support others in using this definition for their own purposes, I do feel as though the term takes a different shape to others.

Since the term is defined as a form of “electronic text” this leaves a broad array of different types of technologies that can be misinterpreted as an e-Book. The most common of these misconceptions is computer-assisted instruction (CAI) software programs. The difference in e-Books and CAI are in the text features. CAI software does not use embedded features in book format; they are simply digital instructional activities. On the other hand, e-Books use a closed system to display both narrative and informational text which excludes it from advertisements that would be lurking in an open Internet environment.

### *History of e-Books*

Electronic books have been conceptualized since the late 1960’s. A technology professor at Brown University by the name of Andries van Dam first coined the term “electronic book” during this time. Although e-Books have been thought about and investigated for over four decades now, educational researchers just began exploring the value of e-Books as they became more affordable in the mid-1980’s. Some of the earliest e-Books used a computer system with voice output as a method of supporting beginning and struggling readers.

Within the past two decades, e-Books have become more widely available to the public. They can now be found in many languages, are used for both entertainment and educational purposes, and can contain a larger number of instructional support features.

Today, e-Books can be anything from “animated, interactive versions of classic children’s books, such as *The Little Prince* to more sophisticated e-books, such as the Thinking Reader software that allows teachers to match specific comprehension strategies to individual student profiles, ensuring that e-book

supports target each students' instructional needs" (Zucker et al., 2009, p.49). As time goes on and more research is done with this ever-improving technological tool, e-Books, and more specifically educational e-Books, will become a more commonly used tool in classrooms everywhere.

#### *Benefits and challenges of e-Books*

The verdict is still out on whether or not e-Books are beneficial or a hindrance to emergent readers. However, after reviewing the literature on this topic studies such as Shamir (2009) and Korat and Shamir (2007) examined both comprehension-related skills as well as decoding-related skills looking for growths in the participants' emergent literacy skills. The findings of these studies were similar in that the participants' decoding and comprehension skills both showed gains after literacy instruction with e-Books was carried out in comparison to a control groups' regular kindergarten program.

Meanwhile, some studies (Segal-Drori, Korat, Shamir, and Klein (2010), Korat et al. (2009), and Korat and Shamir (2008)) focused more on the decoding-related skills in their studies. Again these studies found similar results in the participants' emergent literacy skills. In all three studies the students that participated in the e-Book instruction groups showed significant gains in their decoding-related skills. These areas of growth were in the categories of decoding skills such as; recognition of letter names, letter-sound connection, opening and closing phoneme, division of syllables, word reading, phonological awareness, and concepts about print.

One challenge e-Books present is how big of a distraction they can actually be to emergent readers while using them. After reading about all the well

designed features, such as embedded hotspots and animations, one begins to wonder how much is too much. It has been proven in studies like Korat and Shamir (2008), that using e-Books with certain features can impact an emergent reader's literacy level in a positive way in comparison to just printed text. However, the majority of these studies are done with educational e-Books that have been specifically designed for their usage in a classroom setting. When one begins to review studies like Korat and Shamir (2004), and de Jong and Bus (2003) which examined commercially available e-Books, you start looking for some e-books that appear to overdo features. Possibly reasoning for this exaggeration of features could be an effort to make the reading experience more entertaining or simply to make the product more marketable. It becomes a fine line between e-Books looking like a game rather than an educational task. We don't want to promote passive reading of the text nor do we want these to create distractions to lure the child away from the text, thus impeding their comprehension.

### **Electronic Book and Emergent Literacy**

#### *Emergent Readers*

Since my research is focused on e-Books in the literacy field of emergent reading it is essential that readers of this research study understand what an emergent reader looks like. While every study examined in my review of literature sampled a population of kindergarteners as emergent readers, it is not safe to assume that children ages five-to-six years old make up the entire populace of emergent readers. Sulzby and Teale (1996) state,

"Emergent literacy is concerned with the earliest phases of literacy

development, the period between birth and the time when children read and write conventionally. The term emergent literacy signals a belief that, in a literate society, young children--even 1- and 2-year-olds--are in the process of becoming literate" (p. 728).

If we are to believe this definition then we can conclude that emergent literacy is a stage of reading that is gone through and surpassed by different children and different rates. Therefore, it is a mistake for one to assume that readers at the emergent level are restricted to five- and six-year old kindergartners as they may conclude from the data presented in the studies referenced for this literature review.

As with all technologies the issue becomes not what can be done but what should be done. E-Books are indicating that technology is becoming more specialized and are creating their own unique environment for literacy. If you think of an automobile becoming a new form of transportation and all its little unique features (e.g. windshield wipers and dome lights), you can draw similarities to an e-Book being a new form of computer with its own distinctive set of features which allow it to enhance a student's literacy development (Labbo & Reinking, 1999).

### **Reading Development**

The relationship between comprehension and decoding has long been touted as an important one in the field of literacy. As children develop the skills related to decoding they become more able to read the text fluently. When children are then able to read fluently, their comprehension begins to increase and eventually becomes an area of strength. If children are able to handle text in an

appropriate way, quickly and correctly decode the words as they read, and know and understand word meanings in context, there will be fewer stoppages as they are reading. These stoppages where children are looking for help or when they incorrectly decode a word results in a break in fluency. This is when comprehension begins to get lost because they are being pulled away from the context of the story and into a vocabulary mindset which may result in their loss of focus from the story at hand.

### *Comprehension*

Comprehension acquisition can be determined by comparing assessment data dependent on comprehension questions, story retelling or summarizing, or vocabulary learning. Comprehension questions are a tool used by researchers after a participant has read a given text. These questions are directly related to the content that the participant was asked to read and can be in the format of multiple choice or short response answers. Story retelling and summarizing is a tricky tool for assessment because while they sound similar, they are not the same. A story retelling is when a child, after hearing or reading a story, “retells” the events to a listener. Many times these retellings consist of students orally recalling events as they happen in logical sequence throughout the whole story. Essentially, when a student retells a story they are talking through the story from beginning to end. A summary is different from this because when a student summarizes it should be in the same text structure and order as the original text, but a shortened version stating just the main ideas and important details. Lastly, vocabulary learning in comprehension is the ability to know and understand what a word means in context.



### *Decoding*

The areas of decoding that may be used as assessment data are word or letter knowledge, print knowledge and print concepts, or phonological skills. Word and letter knowledge are principles of phonics instruction. It is the understanding that there are relationships between written letters and sounds which help children "decode" new words and recognize familiar words accurately and automatically. Print knowledge and print concepts are your basic rules of handling printed material. These rules include knowing how to hold a book the right way, being able to tell the front of the book from the back of the book, turning pages left to right, and differentiating between print and pictures. Lastly, phonological skills are defined as having an awareness that words are made up of smaller units of sounds. These units require knowledge involving rhyme recognition, syllables, onset, and rime.

### *E-Books and Reading Development*

The research conducted in these studies were focused on specific literacy skills that emergent readers need to have to progress to the next stage of reading. By exploring different avenues of incorporating e-Books in literacy instruction educators are able to gain knowledge as to the best way to use e-Books in their classroom. Studies such as Korat et al., (2009), and Segal-Drori et al., (2010), researched e-Books in emergent literacy instruction with and without adult support. By reviewing these studies we are able to gain perspective as to whether or not learning will take place at an independent level, or if adult guidance is needed to show progress with the use of e-Books. Both of these studies yielded the same results in that e-Books being used with adult support prove more

valuable to literacy instruction than without adult support. Children who were in the study groups that used e-Books and had adult support showed greater gains in the areas of word reading, print concepts, and phonological awareness than those in the groups without adult support.

Other studies (Korat & Shamir, 2008) looked at how LSES and MSES children did both independently with e-Books and in comparison to one another. This study showed that while both SES groups literacy skill levels improved with the use of e-Books, the LSES children showed greater gains than the MSES group. What all this means is that by researching a variety of studies, we can narrow down when the application of e-Books as a tool for technology integration in the classroom will be useful.

## **CHAPTER 3: METHODS AND PROCEDURES**

### **Introduction**

This study analyzes both the positive and negative effects of using e-books within emergent literacy instruction. The teacher researcher worked with two first grade students to determine what multimodal features e-books possess and how they may support or hinder students' comprehension and decoding of text. As an extension of this research the teacher researcher also examined how using such technology affects the readers' response to literature. The following section will explain the community, school, and classroom demographic information where this study took place, along with a description about data collection methods and analysis.

### **Context and participants**

#### *Community*

This study was conducted at an elementary school in a prosperous, residential, suburban community in western New York. This district is known for its historic village, fine suburban neighborhoods, and excellent schools. Set within the districts rolling landscape are two college campuses, numerous private golf courses, a fine park system, and farmland. The total population in this community is approximately 29,500 people with a median household income of about \$88,200. The public school system has the fourth highest enrollment in the country with almost 6,000 students. Over 1,150 employees including teachers, administrators, and support staff provide quality services for these students across nine school buildings. Of these students 86% are white with the other 14% being distributed to African American, Hispanic, Asian, and multiracial families. Only

4% of the enrolled students receive reduced or free lunch and 1% are considered limited English proficient. The per pupil cost for 2011-2012 is approximately \$17,500, with an operating budget of \$111,590,726.

### *School*

The school at which this study was conducted is the smallest of the nine school buildings housing about 350 students in grades K-5. The average class size is about 20 students with 84% of the students being of white racial origin. The other 16% of the student body is distributed between African American, Hispanic, Asian, and multiracial families. The number of students who receive reduced-price or free lunch is above the district average at approximately 11%. However, the number of limited English proficient students is on average 1% of students at the elementary school.

The school has many technology related resources available to staff and students alike. Each classroom is outfitted with an interactive whiteboard as well as smart ELMO projectors with the capability of linking to the interactive whiteboard. The school has a computer lab available for all classrooms to use at a scheduled time linked to the school's electronic mail (e-mail). This computer lab has approximately 30 PC desktop computers and is also outfitted with an interactive whiteboard. If this resource is not available grades 3-5 have their own portable laptop cart that is shared exclusively by the grade level only. The teacher must again schedule a time through e-mail to sign out this cart. Like the computer lab, the laptop cart comes stocked with 30 PC laptops. The school has recently licensed the interactive reading software *Overdrive* as well as received a grant for seven *Nook* electronic readers. These two interactive reading experiences will be

available to staff and students by the beginning of November 2011.

### *Class*

The first grade classroom that this study was carried out in is composed of numerous work spaces for students. The students are divided evenly and heterogeneously among four tables where they do most of their daily work. There are also two teacher tables for small group instruction. The classroom teacher instructs at one and the teacher's aide at the other. As an alternative to sitting at their seats during whole group instruction there is a large carpeted area where guided practice or mini-lessons can take place. The classroom also has a third work table used for independent work if a student needs a quieter and less distracting setting.

The class follows a routine schedule daily. This schedule begins with a morning meeting everyday where children learn vocabulary related to calendars, have discussions about current happenings in school, and preview their day. They then begin a literacy block which includes reading and writing. This block takes them all the way to recess/lunch time. After lunch the students come back and engage in sustained silent reading before beginning their daily math time. The day ends with either a social studies or science lesson before packing up to go home. Each instructional day also includes one special (i.e. art, gym, music, library, or computers).

The first grade class in this study is composed of 21 students. The class gender ratio is nearly an even split with 11 boys and 10 girls. All students are identified as Caucasian. The class is comprised of low to middle class students with a wide range of ability. The reading levels for this class fall in a range from 3

to 18 based on the *Developmental Reading Assessment* (DRA) administered in June of 2011. For this study the first grade teacher designated two first graders to serve as focal students. They were selected based on the cooperating teacher's knowledge of these students' literacy abilities through both formal and informal assessment.

### *Participants*

My first focal student is a six year old boy. For the purposes of this study the student will be called Danny. Danny is from a middle class family who are of Caucasian descent. His last DRA, conducted in June 2011, concluded that he was reading at an instructional level 6.

My second focal student is a six year old girl. For the purposes of this study the student will be called Sarah. Sarah is from a middle class family who are of Caucasian descent. Her last DRA, conducted in June 2011, concluded that she was reading at an instructional level 4.

### *Teacher Researcher*

The teacher research, Joseph Juzwiak, is in his late twenties and identifies as Caucasian. He currently holds a Bachelors degree in Childhood Education from SUNY Fredonia and is pursuing a Masters degree in Childhood Literacy from The College at Brockport. Joe is a second year teacher of fourth grade at the school in which this study is being conducted. He has experience with emergent readers through field work conducted in undergraduate classes, student teaching, substitute teaching, and paraprofessional work. Through this study Joe is looking to incorporate his passion for teaching readers with the growing industry of electronics.

### *Permission and Confidentiality*

For the purposes of this study, permission was collected from all 21 students in the first grade class. A letter was sent home explaining the study and requesting a signature for consent. Student identity was protected in multiple ways. When writing about the focal students in this study the use of pseudonyms were applied at all times. Also, any data collected (e.g. student work) had student information blacked out to ensure anonymity.

### **Data Collection Instruments**

Data for this study was collected in a variety of ways. For this study student observations, field notes, informal conversations, and surveys were used to research how e-Books affect an emergent reader's literacy development. Through the use of these data collection methods the results yielded were directly applicable to my research questions.

Through observation I was able to see how my focal students interacted with regular texts and e-Books. This data lent itself to see if certain features of e-Books were supporting or hindering students. Through these observations I was able to note what features were or were not being utilized and if they directly affected student comprehension or decoding. I recorded these observations with the use of a formal field note form.

Informal conversations were carried out with the students during and after reading in order to assess whether a student's comprehension is affected positively or negatively when using e-Books. These conversations were not scripted and did not require any writing of the focal students.

Surveys also lent themselves to my research as they provided me an

overview as to how my focal students felt about reading. This gave me data as to if motivation played a role in the child's literacy development and if its effects are greater with e-Books. The evidence gained from these research methods remained consistent through the domains, providing for valid and reliable results.

## **Procedures**

This study took place over a span of four weeks. Each week I spent three to four days in a first grade classroom working with two focal students on reading instruction with the support of an e-Book.

For the purposes of this study I introduced a *Nook Tablet* to the focal students as the e-Book they would be using during our time together. I was looking for a device that was capable of showing colored pictures and had internet accessibility. The *Nook Tablet* had those two major components and much more. The *Nook Tablet* is exclusively offered through Barnes & Noble, a large nationwide bookstore, and brings all the aspects of a computer into a book-sized touch screen device. Users can not only read books but they can also surf the web, check e-mail, download applications, listen to music, and watch videos, among other things. With a suggested battery life of over 11 hours the user can accomplish a lot during their day.

Since this study was mainly focused on the reading component of the device the *Nook Tablet* seemed as though it was the best option due to its affiliation with Barnes & Noble. Barnes & Noble's device features more than 2.5 million digital books, periodicals, children's books and more. Their *Nook Kids* program alone offers more than 1,400 interactive children's picture books, some featuring animation and engaging activities, and more than 12,000 chapter books.



After selecting the device I was going to use, I had to download books for the focal students to use. This was easy using the device's internet connectivity and the shop application on the home screen. I downloaded both fictional and non-fiction texts. These texts included *The Zoo Band* by Jill L. Donahue, *The Elephant's Child: How the Elephant Got His Trunk* by Rudyard Kipling, *Huff and Puff* by Tish Rabe, *Fun Facts about Pets* by Seymour Simon, *See Me Grow Fun* by Penny Arlon, *Put Me in the Zoo* by Robert Lopshire, and *I Saw an Ant on the Railroad Track* by Joshua Prince.

I started the study by giving each child an interest survey to gauge their interest in reading. I then gave them the same survey at the end of our time together, after spending considerable time reading with an e-Book to see if it had affected them. During the study, the students were still receiving their daily literacy instruction with their homeroom teacher.

Over the course of my research I observed how my focal students interacted with e-Books and which multimodal tools the students used. I recorded my observations in the form of field notes which provided me with specific data as to which functions are supporting and which may be hindering a student's comprehension or decoding. These field notes also yielded results as to the ability of a young child to operate the device, the many features of an e-Book, and the distractibility of the device itself (including its features).

### **Data Analysis**

At the beginning and end of this study I administered a survey to the focal students to gauge their interest in reading. Each time the survey was scored and change in attitude noted. Any change both positive and negative can be found in

the results section of this study.

In addition to the data collected from my work with the focal students I collected work samples and student data from their classroom teacher. These data provided me with a baseline to compare student progress with an e-Book to student work in their regular reading program. I specifically collected scored reading responses, comprehension related responses, and word study scores. After completing my own data collection using comprehension conversations, as well as field notes, I was able to compare the two data sets in order to note any change in student achievement. There is triangulation across domains of data to ensure validity and reliability of this study.

### **Summary**

This study examined how literacy instruction with the use of an electronic book influences a child's reading development. The study focused on the variables of motivation, comprehension, and decoding. Data were collected from two first grade students attending a public school in an upper middle class school district. Data collection instruments include surveys, informal conversation and observation field notes. This data were analyzed in comparison to data collected from their classroom teacher who administers their regular reading program.

## **CHAPTER 4: INTERPRETATION OF DATA**

### **Introduction**

Our nation is growing more reliant on technology every day. The government has even gone as far as to implement the incorporation of technology into our nation's classrooms. Based on this information, I conducted a four-week long qualitative study focused on assessing the effectiveness of e-Books in emergent literacy development. I observed and analyzed the work of two first graders. In the process I observed the two participants' interactions with an electronic book and had conversations with them regarding the text they read during each session. My overall objective was to determine if using e-Books had an impact on building comprehension and decoding skills.

In the research study, I examined how reading e-Books and using the features that come with their use affect emergent reader's comprehension and decoding skills. This study involved looking at four research questions. The first research question looked at what kinds of features are included in e-Books. The second research question focused on the affect of using e-Books on an emergent reader's motivation to read. The third research question examined what ways e-Books and their features support or hinder comprehension. The last research question investigated what ways e-Books and their features support or hinder decoding.

### **Research Question 1: What kinds of features are included in e-books?**

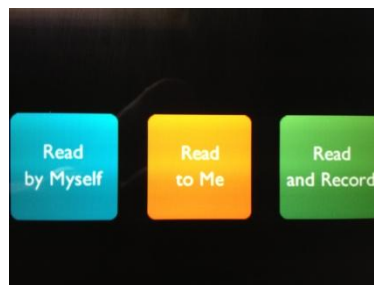
During this study participants used a tablet-like electronic book to read text both to themselves and aloud. While reading the teacher researcher observed how the

focal students interacted with this text and the text features embedded within the story. The features observed to be used in this study do not include all available features e-Books have to offer. However, there were still several available features for participants to use while reading. These include but are not limited to style of reading, a menu bar, and animations.

### *Style of Reading*

Before beginning a text students are prompted to choose the style of reading they will be doing with the e-Book. The options include read to myself, read to me, read and play, and read and record.

**Figure 4.1 Style of Reading Selection Menu**

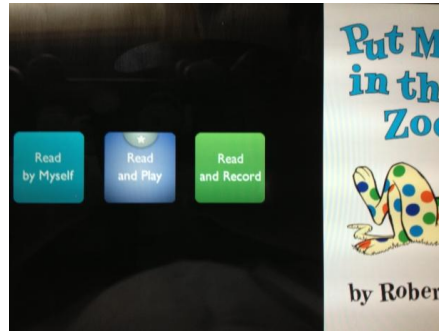


The “read to myself” feature allowed students to enjoy a text at their own pace and in their own words. Any animations or sounds embedded within the illustrations would have to be manually activated. The “read to myself” feature was most commonly used by the students as they read aloud to the teacher researcher. All of the texts the students read for the purposes of this study included this feature.

Another option for readers using an e-Book to read is the “read to me” feature which, if pressed, would have an automated voice read the story as the student listened. As part of this feature any animations built into the pictures are

automatically played for the reader to hear and see. Again, all of the texts used in this study included this as an option for reading style.

**Figure 4.2 Reading Style Menu with “Read and Play” Option**



A similar feature to that of the “read to me” option is the “read and play” option. If this option is selected then an automated voice will read the story to the child. Only two of the texts used in this study offered this feature, *Put Me in the Zoo* by Robert Lopshire, and *I Saw an Ant on the Railroad Track* by Joshua Prince. If reading one of these selections, students are prompted that if they see a star in the text it can be pressed to play an activity. The activities are not meant to improve comprehension but more of a motivational tool for the students to read. For example, in the story *Put Me in the Zoo*, when students press the star they are prompted to “touch the page to put spots everywhere.” While this directly ties into what is being read to them the students comprehension and decoding is not benefiting from putting spots all over the page. Then, in the story *I Saw an Ant on the Railroad Track* readers are prompted to “draw a snack for the ant on the plate.”

**Figure 4.3 Example of “Read and Play” Activity**



Again, while this ties into what is happening in the story, its function is more to interact with the text then to increase comprehension and decoding skills.

The last of the options for style of reading was to “read and record”. This feature was offered by all the texts read during this study and recorded the student’s voice as he/she read aloud when the record button was pushed. These readings once stopped using the stop button could be played back instantly, saved, or re-recorded. If the save button is pressed the reading is automatically saved to the device and it becomes another option for style of reading before beginning a text. This reading could then be played back and listened to as often as they chose.

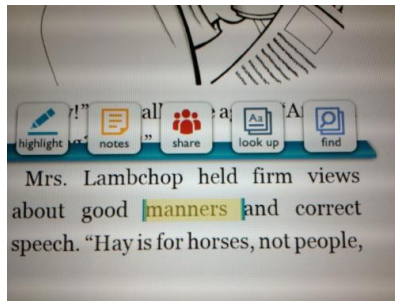
While this can be used as a motivational tool for students I believe the feature to be flawed. The problem with this feature is that there is no function which corrects students if they read incorrectly. Students may make several miscues while reading a text which may lead to them incorrectly comprehending what is happening in the story. They will then listen and re-listen to themselves reading incorrect material.

#### *Menu Bar*

During reading any of the texts for this study, students could press and hold a finger down on a word to activate this feature. The word they press on becomes

highlighted and an options menu appears. These options include highlight, notes, share, look up, and find tabs.

**Figure 4.4 Menu Bar**



The highlight tab can be used to mark text that may be interesting, connect to the student, is new information, or sparks a question or prediction from the student. If a student does highlight text they could then use the notes tab to add their question, comment, or prediction. Another option is to use the share tab which allows students to pass along text to other members via social networking links if connected to the Internet. Should a student find themselves stuck on a word or confused about a word's meaning and how it connects to the text they can utilize the look up tab. The look up tab brings up a pronunciation key and the definition(s) of a word. These features are taken straight from *Merriam Webster's Dictionary*. Again, Internet connection is required to use this tab as the e-Book needs to search for its response. The last of the tabs is a find tab. This tab allows the reader to search the whole text for the word they have highlighted.

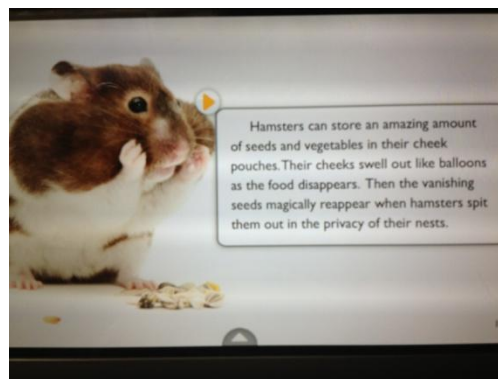
### *Animations*

Besides the obvious flick of the finger to digitally turn a page, perhaps the most utilized of the features of e-Books was the animations. Animations can show up

in many different places and can perform a variety of tasks. They may be as simple as a moving illustration or as complex as clicking a tab to open a pop out window which then requires you to click a play button to listen to a feature. I will explain the animations the students experimented with during this study.

A simple, yet useful, animation is activated when a student double clicks a section of the text. Once activated the paragraph will pop out and a play button will appear in the top left corner. Should a student choose to press this button, the text will be read aloud to the student as they listen and follow along. This feature was available in all the texts read during this study regardless of the style of reading being done by the student. This means that even though a student chose the “read to myself” and not the “read to me” feature, a narrator would still read a portion of the text chosen by the student.

**Figure 4.5 Example of Pop-Out Narration Text**



Another simple animation offered in some texts was just that, an animation! In the story *I Saw an Ant on the Railroad Track* the pictures were more than just pictures. The pictures in this text would not only move to enhance the reading experience but also include sound. For example, on the page where a train was



coming and the ant was walking on the train tracks the tracks would visibly shake and the sound of a train coming would be audible to the reader automatically. This feature was also available in the more commonly used “read to myself” feature though there is no indication to the reader that it is available. Unless the reader happened to be randomly double tapping on the page this feature would go unnoticed. If the reader does happen to activate this feature in this style of reading though, the same animation of movement and sound would occur as in the “read and play” or “read to me” styles of reading.

Other texts offered oval buttons with topics written inside of them. These buttons if double clicked will activate one of several different features. In the text *See Me Grow Fun!* by Scholastic, a green button provided the reader with more information on the topic inside of the button. An orange button with a speaker next to the topic meant that if clicked a sound would play. Lastly, a blue button was used when a student was required to interact with the text. For example, if the text asked a question the possible responses were in a blue oval. Once clicked the student found out if they were correct or incorrect. They then had an opportunity to adjust their response appropriately depending on the accuracy of their response.

**Figure 4.6 Examples of Information Bubbles**



## **Research Question 2: In what ways do e-Books affect reading motivation?**

Motivation is the key to almost anything we do in life. Whether it is mowing the lawn or reading a book; it is always easier to start something when it is enjoyable or there is some reward at the end. When thinking about the relationship of motivation and reading, teachers are in a constant struggle to get reluctant readers just to pick up a book let alone begin to read and enjoy it. With this in mind I wanted to explore whether using an e-Book had any effect on a reader's motivation to read. In this section I will discuss the affect using an e-Book to read had on the focal students' motivation.

During my first session with the focal students in this study I wanted to get to know them a little deeper. After introductions and some background about what we would be doing for the next four weeks I asked the students about e-Books. When the students were asked if they knew what an e-Book was, the focal students were not sure how to describe one. Sarah said that her mom had an *Apple iPad* which then led Danny to claim that his parents owned a *Kindle Fire*. While these are both devices that books can be read on the students failed to make that connection. I then asked the focal students if they had ever used those devices to read a book on to which both responded "No."

After this brief, yet insightful, conversation I administered the *Garfield Elementary Reading Attitude Survey*. Before beginning I was explicit with the focal students about the survey not counting for a grade, it being our secret that no one would know, and about being as honest as they can be. I let the focal students know

that I just wanted to get a look into how they felt about reading up to that point in their very young lives. This survey focuses on different scenarios in which students may encounter books or have to read and asks them to rate how they would feel in each case. Since the students had not yet been exposed to e-Books the survey would be a good baseline as to how they view printed text.

Danny's survey indicated that he was the happiest Garfield for all 20 questions that were asked. This was surprising to me as research tends to indicate that boys are the more reluctant of the two genders as readers. Some of the questions that Danny indicated he was really happy about reading during free time, on summer vacation, instead of playing, as well as enjoying getting a book for a present. When I went over the survey with Danny again he stayed true to his answers, even with added encouragement to be open and honest.

Although Danny already had indicated that he enjoyed reading his excitement was still evident during our discussion about what we would be doing over the course of our time together. He was anxious to use an e-Book rather than the usual paperback texts he was used to. With little or no experience using a resource such as an e-Book, coupled with being a giddy first grader the concept of using an e-Book was still motivational to Danny.

Sarah's survey was not much different from Danny's indicating the same feeling of excitement about scenarios with books as mentioned with Danny. However, she did vary from Danny in not all of her responses were the happiest

Garfield. Sarah circled the satisfied Garfield for five of the questions. These questions included numbers:

9- “How do you feel about going to a bookstore?”

10- “How do you feel about reading different kinds of books?”

11- “How do you feel when a teacher asks you questions about what you read?”

19- “How do you feel about using a dictionary?”

20- “How do you feel about taking a reading test?”

Sarah’s responses led me to believe several things about her. First, Sarah’s response to question 10 leads me to believe that she is likely only motivated to read one particular genre or type of text. My understanding becomes even clearer when I ask her why she does not enjoy bookstores that much. Sarah responds by saying, “The books I like are too hard to find. There isn’t just an animal section.” Sarah’s awareness of the type of text she likes will prove to be a strength when using an e-Book as a tool for reading.

When in the process of finding a book there are two ways this works to her advantage. The first way is to navigate through the electronic library using the shop tab. The user will then have to go through a series of clicks on the tabs- books, kids, and animals- to narrow their search to just one type of book (e.g. cats and cat family books). The other option is to simply open the shop tab and type in the search bar a few keywords. For example, Sarah might type “kids cat books” to yield results

similar to the ones if she had gone through the process of selecting tabs that describe what she is looking for.

Another implication of Sarah's survey was that she may be aware of her need to strengthen comprehension of text. Sarah's response to questions 11 and 20 did not surprise me as my conversations with her regular reading teacher before this study began led me to expect a lack of fluency and comprehension not only in Sarah, but in both focal students.

The lack of fluency expressed by Sarah's regular reading teacher is confirmed before reading has begun when Sarah responds to question 18 of the survey with the worst feeling Garfield. Question 18 states "How do you feel when you read out loud in class?" When Sarah was asked why she circled the unhappiest Garfield on the survey she responded by saying, "I don't like messing up and having everyone hear me." Based on the initial survey, it was easy to see that Sarah had some self-confidence issues when reading and responding to text. Through the use of an e-Book and its resources one could look to motivate a reader such as Sarah to engage with the text and help boost their self-esteem.

At the end of this study I had the focal students complete the survey once again. I directed them to consider now the idea of reading a book using an e-Book when responding to the survey questions. Both students circled all 20 of the happiest Garfields now. Since Danny already had all 20 happiest Garfields circled before I had a brief conversation with him to discuss if he felt any different after using an e-Book. Our conversation was as follows:

Joe: Did you like using an e-Book?

Danny: Yes

Joe: What did you like about it?

Danny: The sounds and how it can help me read.

Joe: If you were allowed to pick between reading a paper book or an e-Book which would you choose?

Danny: An e-Book

Joe: Why?

Danny: Because they are more fun to read. I can do more things with them.

Joe: If I gave you the survey again and asked you to fill it out thinking about paper books again would your answers change now that you've used an e-Book? (Teacher shows Danny his original survey)

Danny: No, I still like to read I just think e-Books are more fun.

While Danny still likes paper books that doesn't mean that e-Books weren't or can't be a motivational tool for him. His statement of them being "more fun to read" is useful information for his regular reading teacher to use if his attitude changes when reading specific genres or texts that he may not be excited to read. The idea of being able to interact with the text may be enticing enough to keep Danny motivated regardless of the story or situation.

Sarah and I also had a brief conversation to discuss her change in attitude. I focused on the areas that she indicated in her initial survey to not be pleasing. Our conversation was as follows:

Joe: So tell me a little bit about why your answers changed.

Sarah: I liked the little buttons you could press to help.

Joe: Can you give me some examples of buttons you liked?

Sarah: The one where you press on a word and it tells you what it means and how the story reads to you.

Joe: Yea, those ones are really cool, huh? Why did you like those ones?

Sarah: They helped me read when I got stuck. So I could keep on reading and know what the story was about.

Joe: Wow that's awesome! So is that why you said you feel better about reading out loud in the class?

Sarah: Well no, I think I would still be scared but if I could use the talking thing to help me I would try it.

Joe: Oh ok, so maybe not the happiest Garfield then but definitely better than the grumpiest Garfield?

Sarah: Yea.

Using an e-Book is a perfect resource for Sarah to use while reading independently. With the use of a headset she can listen to a story using the “read to me” feature to get familiar with the words in the story. She could then use the “read and record” feature to practice reading the story and hearing herself afterwards. This will build confidence so that Sarah will be more motivated to participate in shared reading activities while also building her comprehension as she will have interacted with the story several times.

Through this study I learned that e-Books can indeed be motivational to all readers alike. This study took place in an affluent district in which families are more likely to be invested in their child's education than some of the lower socioeconomic areas of the country. That is not to say that there still are not reluctant readers in this focal study's school; however, if e-Books can be a motivational tool for highly

engaged readers such as Danny and Sarah then they could certainly be considered a motivational resource for many students who don't enjoy reading as much.

**Research Question 3: In what ways do e-Books support and hinder reading comprehension?**

In this section I will focus on how e-Books either supported or hindered the focal students' reading comprehension. The data gathered in this section are from conversations with the students and field notes about their interactions with the e-Book and its features through observation. Both students were initially identified by their regular reading teacher as emergent readers and having difficulty in both reading comprehension and fluency.

After administering the Garfield Survey on day 1 of this study I immediately went into reading with the students using an e-Book. With little background knowledge about e-Books or the device itself it was instantly made apparent that I would not get far with the focal students without pre-teaching them how to use the device.

Danny initially did not know how to turn a page let alone where the book started. As he fingered through the pages of *The Zoo Band* by Jill L. Donahue, after being taught how to, he repeatedly asked me "Is this a page?" Although Danny had read countless paper books he was unable to identify the difference between the title page, copyright page, and where the text initially began independently. I let Danny continue to read the first text with no help from me other than getting him to the first page and if prompted by him. This allowed me to get a baseline of where he was both



with reading and to see how he would interact with the e-Book once he was in the text. Danny continued to struggle to make it through the book so I instructed him to stop reading after 4 pages of the 24 page book. My next several sessions with Danny were spent educating him on how to properly use an e-Book and utilize its functions. I decided that before each text he read I would preview the book with Danny pre-teaching any new features the text might include.

Once educated on the e-Book device itself and with the pre-teaching before reading we were ready to begin regular reading sessions together. During these times we had conversations about the texts being read and I observed how the features of the e-Book either supported or hindered Danny while reading. These observations were noted in the form of observation notes.

It was noted that using an e-Book and the features included in the books that were used for this study supported Danny in several ways. The features that helped Danny included the “read to me” feature and the sound animations. That’s not to say that the other features couldn’t be useful for Danny in the future with further instruction and practice on how to properly use them; however, these two features had an immediate impact on Danny’s comprehension abilities.

The e-Book feature which allowed for the student to have the story read to them was beneficial for Danny as his listening comprehension was stronger than his reading comprehension. Being able to listen to a story told fluently and with expression helped Danny not only understand the story better but also continually hear what it should sound like when someone is reading. During Danny’s initial

reading of *The Zoo Band* it was noted that he read word by word. This lack of fluency directly impacts a reader's ability to comprehend text. The more Danny is able to hear the story being read to him the more his own reading fluency will improve. The "read to me" feature was utilized as part of our pre-teaching routine to enhance Danny's reading experience when it was his turn to read the text himself. Each time he heard a story he became more fluent and more aware of what was happening in the story when he read.

During our initial reading of *The Elephant's Child*, a story about how elephants got their trunks, Danny was unable to verbally tell me what the story was about. He often struggled decoding the words which led to miscues that may have affected his comprehension. During our post reading conversation Danny expressed this to me while summarizing the events:

Danny: The story was about an Elephant that needed help finding his nose. The other animals were trying to help him but they couldn't so he kept going to another animal. Finally he got to the alligator and he pulled his nose out. Then all the animals had a party.

While Danny understood that the story had something to do with the Elephant and his nose he failed to understand that the animals were in fact being mean to the Elephant and not helpful. I then had Danny listen to the story using the "read to me" feature and asked him again to summarize the events. His new response was as follows:

Danny: Elephants didn't have noses before and wondered why so he asked other animals about things they had. They got mad though and wouldn't talk to him. A Bird finally told him to ask the alligator because he would help so he went to do that. The alligator tried to bite him and pulled his nose out. The Elephant was happy and started using his new nose and the other animals were jealous.

Just from hearing the story read once Danny was able to better comprehend the story. He now understood that the animals were actually being mean to the Elephant and shoing him away rather than directing him to the next animal. Danny was also now able to recognize that the alligator (actually a Crocodile in the story) was also not being helpful, rather trying to “bite him”. After this I had Danny re-read the story out loud again to continue to practice reading fluently.

Another feature that helped Danny out was the animation in which a reader can double click on a portion of the text and the paragraph pops out with a play button. If the play button is pushed that portion of the text is read to the reader. This feature helped Danny similarly to the way the “read to me” feature did. It benefited Danny during readings of easier texts like *Huff and Puff*, and after Danny had had exposure to more difficult texts before. This allowed Danny to use the “read to myself” feature to read the text that he knew and understood. When Danny recognized that he wasn’t able to understand a portion of the text or was struggling to read it he would double click and have it read to him and then continue to read to his self. This feature was most used when we read the story *Fun Facts About Pets*. Since this was a non-fiction book having to do with pets, Danny had a lot of background knowledge about pets. He was able to read and understand a lot of the different parts of the text. However, also because it is non-fiction there are specialized words and names that Danny stumbled on. By using the animation that allows a piece of the text to be read to him Danny was able to keep reading at his own pace without missing pieces of important information along the way. For example, when reading about

lizards in this book Danny falsely assumed that all lizards change colors. I directed him to the page where that information was located and had him use the feature to listen to the passage. Afterwards, Danny was able to correct himself. This is how that conversation looked:

Joe: So do all lizards change colors?

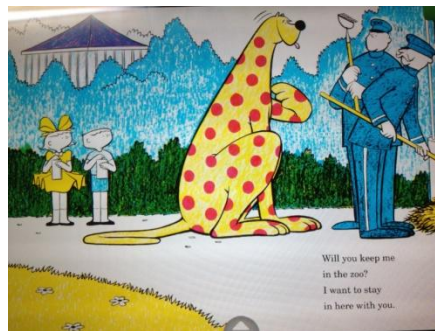
Danny: No, only some.

Joe: Hmm, that's interesting. Did the book list any of those?

Danny: Yea, chameleons are one kind and I forgot how to say the other kind. (Danny points to the word "anoles" in the book)

Another sound animation that helped Danny to comprehend text was those embedded in the pictures. The pictures that included sound and movement really helped Danny understand the information being presented. It made the text come alive for Danny and gave him added information to process what was happening in the text being read. For example, in the story *Put Me in the Zoo*, when the text reads "Will you keep me in the zoo? I want to stay in here with you." the animal in the picture repeatedly points to himself.

**Figure 4.7 Example of Animated Picture**



This text can be difficult for a child to understand because it does not identify the speaker. Without the picture and the animation to enhance this experience the reader could easily confuse who is speaking in this passage. Danny was able to utilize this animation to correctly identify the animal in the picture as the speaker talking to “the guards”.

While Danny benefited from the features of e-Books, his reading comprehension was also hindered by some as well. Danny would repeatedly bring up the menu bar by accident which would lead him to become curious and click some of the tabs of this feature even though he did not need them. Danny would also accidentally turn the page as he used his finger to track the words on the page as he read. He would then have to turn back and find his spot in the story. Another feature of the e-Book that hindered Danny’s comprehension was the fact that when reading an e-Book it is only a one-page at a time experience. This is contrary to a paper book where you can see two pages at once. In some of the texts we read without being able to connect the picture on one page to what is happening on the next Danny was unable to comprehend portions of a text. Although we did not experience a book in this study where the structure was set up as so, there are some e-Books where there is just a picture on one page and text that goes with it on the next. In a paperback version of the same story the reader would be able to see the picture on the left or right page and use that picture to help comprehend what is being said on the opposite page. This is not a feature readily available on the *Nook Tablet*.

Like Danny, Sarah struggled at first with the concept of an e-Book and all its features. Sarah did understand how to turn the page and where the story began. However, she still required an extensive introduction to the device and all it could do as well as pre-teaching of the features that were available for each story. In the end Sarah's comprehension too was supported and hindered by the features of an e-Book. Sarah benefited from some of the same features that Danny did but also used the menu bar a lot more.

Since Sarah was slightly better at decoding words, though she lacked the confidence, her application of the sound animations came in different forms. While she still used the "read to me" feature as well as the movements and sounds incorporated with the illustrations to her advantage in the same way as Danny. She tended to use the pop out narration box a lot less.

While initially reading the non-fiction story *See Me Grow Fun!* Sarah simply read the words on the page without clicking the colored bubbles to gather more information. Some of these bubbles contained sound-bytes or additional information which was vital to understanding the book. Because she was unable to recognize this feature she would simply guess at prompts when they posed questions to her. For example on the page entitled "Why the long face?" the question stated "Why do you think this baby anteater has such a long pointy snout?" Sarah used her background knowledge about the word snout to guess that, "It helps them smell better." What Sarah failed to notice is the green bubble beside the picture with the word "anteater"

in it. This meant that if clicked it would offer more information about whatever was written in the bubble.

**Figure 4.8 Using the Information Bubbles**



Once introduced to this feature Sarah was able to gather the necessary information to respond correctly to the question. She continued to use the different color bubbles to further enhance her reading experience and help her better understand the text throughout the rest of that text.

The other feature that really helped Sarah comprehend the text better was the menu bar. She continually used the dictionary tab to look up words that she was confused about. For example, in the story *Fun Facts About Pets* a portion of the story read “In China centuries ago, only emperors were allowed to own royal yellow goldfish.” She used the menu bar to look up a word like “emperors”. By doing this Sarah was able to understand that royal yellow goldfish were once only allowed to be owned by royal families in China. Without knowing this critical term Sarah was likely to misinterpret the text and assume that only people in China could own royal yellow goldfish.

Unlike Danny, Sarah's experience with the features of the e-Book hardly hindered her comprehension. Sarah surely experienced the same problems as any emergent reader might where pictures are located on separate pages as explained before. However, she was able to apply strategies and techniques more responsibly and stay on-task easier than Danny. Sarah was careful not to activate any feature of the e-Book by mistake or to explore unnecessary resources. It seemed as though where Danny got caught up in the excitement of using an electronic device and wanting to explore it further; Sarah's perception of the device was strictly as a teaching tool to be used only when needed.

#### **Research Question 4: In what ways do e-Books support and hinder decoding?**

In this section I will discuss how the students' decoding abilities were either supported or hindered using the e-Books. These data were gathered using observations of students interacting with the text and recorded on observation note forms.

During our first session in which we used the e-Book as a tool for reading both readers struggled to read fluently partly because of their weak ability to decode words. This weakness also hindered their ability to comprehend the text accurately as their miscues led to misinterpretations of the text. I used the e-Book to teach both Danny and Sarah some techniques that they could use if they find themselves struggling to read a word or are stumbling over larger chunks of text.

The first thing I showed Danny and Sarah was the menu bar which included several options to select regarding a word that was highlighted. These options include



highlight, notes, share, look up, and find tabs. I focused on the look up tab with them as this directly linked them to a dictionary via Internet. Here they were able to find not only the definition of the word but more importantly the syllabication and pronunciation keys. I taught them how to use the key to chunk the words first using the syllabication key and then also how to use the actual pronunciation key included. For example, if they were to look up the word “scientific” found in the text *Fun Facts About Pets* the syllabication key would read sci-en-ti-fic. If a student was still struggling to sound out the word using that resource they were instructed to look at the pronunciation key. The pronunciation key broke down the word phonetically for the student, so “scientific” would read sahy-uhn-tif-ik. The downside to this resource was there wasn’t a feature that allowed for auditory processing of the word; as some online dictionary programs have a button to click where the word is read aloud to the student.

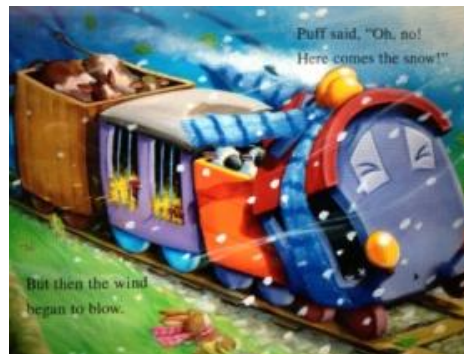
Danny and Sarah both used this feature when they came to words they did not know how to say. However, Sarah, more so than Danny, was adept at using this function of the e-Book using it a significant number of times more than Danny. As stated previously Danny was much more likely to get sidetracked when the menu bar popped up than to use the feature appropriately. Many times Danny would get caught up in the definitions once on the page or the examples of sentences to show the word used in context.

A feature used more often by the two of them was the animation where they could double click on a section of text and have it read to them. This allowed them to

begin reading a portion of the text, recognize they needed help, and activate the feature. When they were first introduced to this feature they were instructed to first try to read the text using strategies that they knew to decode words that were troublesome. Only if they found that there were several words that they could not pronounce should they activate the feature. Once the feature was activated they were to listen to the small chunk of text being read to them. Following that they reread the text aloud themselves so that they would learn how to say the word and then practice reading the word immediately after.

Both Danny and Sarah took advantage of this feature of the e-Book when struggling to read parts of the text. Again, Sarah was more likely to use this feature appropriately whereas Danny overused the feature. When I asked Danny about his noticeable overuse of the feature Danny claimed, “It’s easier than using the menu thing.” I then inquired again as we were reading *Huff and Puff* asking Danny why he had activated the function during an easy portion of the text and he stated “I like to hear the sounds that go with the guy reading.” Danny was referring to the sounds that are sometimes played in the background of the narrator reading the text. For example, in the text *Huff and Puff* a portion of the text he had narrated read “But then the wind began to blow.” As the narrator read you could hear the train on the tracks and the wind blowing. Although Danny did not struggle with the decoding portion of the text he knew that this function was also helping him comprehend the text as well.

**Figure 4.9 Example of Animated Text**



Both the menu bar and the narration of the text features not only acted as supports for decoding but also hindered decoding for both readers. The menu bar was problematic to activate at times and complex to understand, while the animation which allowed for narration of the text was time consuming.

While the menu bar seemed practical enough to use I first had to help with getting the student to activate it. At times when the focal student tried to activate this feature the word they were pressing on would not highlight. Instead of the intended word highlighting a word within the same line may light up or a completely different feature would activate. The user would then have to deactivate the feature and try again.

The researcher must also consider that they are working with emergent readers. These readers can hardly read a picture book let alone accurately use a pronunciation key. So even once they navigate to the dictionary page getting them to accurately use the key would require more training and practice. A lot of times they would not be able to use the key effectively and would wind up going back to the text and mispronouncing the word.

The teacher could then encourage the use of the narration animation to hear the words being read to the student, but this is time consuming. First the reader must attempt to read the text, and then they would activate the feature and listen to the text being read, followed by a rereading of the text themselves. To go through all of this to learn to say a couple words seems tedious. Although it may help the student with decoding abilities to hear and repeat a word, it is slowing down the reading process which will likely impact their comprehension in the long run.

Another hindrance of this feature is the students become over reliant on having the words read to them. They are not learning decoding strategies by relying on a narrator to pronounce the word for them and then repeat it. This is important because without strategies like chunking the word as in a syllabication key, students will not be able to independently decode texts during assessment situations where technology is not readily available or even permitted to assist you.

### **Summary**

This study found that e-Books and their features can both support and hinder emergent readers' comprehension and decoding. While they are a motivational tool to get readers to engage with text it takes time to instruct students on navigating the device, the device's capabilities, and proper use of the device.

## **CHAPTER 5: SUMMARIES, CONCLUSIONS, AND RECOMMENDATIONS**

### **Introduction**

This study examined the use of e-Books in emergent literacy development. The study looked at how the features of e-Books impacted two first grade students' motivation, reading comprehension, and decoding abilities. Students engaged in several reading activities using an e-Book over four weeks with the teacher-researcher to see the ways in which the features of an e-Book impacted these areas. Through triangulation of the data sources, it was found that e-Books can have a significant impact on students' reading and their ability to comprehend and decode text. It was also noted that certain features can hinder this process as well.

### **Conclusions**

After being introduced to the policies of NCLB, and the recent push for more technology integration in the classroom, the demands for ways of incorporating technology in lessons are at a high. E-Books offer educators one possible option for fulfilling the need set upon us to include technology by our district and state standards. However, simply providing children with e-Books will not be sufficient enough to show gains in children's emergent literacy skills. Proper training is needed both for teachers through professional development, as well as students through mini-lessons in the classroom specifically designed to teach how to operate and take full advantage of the resources an e-Book can offer.

Instructors must not forget how big of a distraction e-Books can actually be to emergent readers while using them. After reading about all the well designed features,

such as embedded hotspots and animations, one begins to wonder how much is too much. It has been proven in studies like Korat & Shamir (2008), that using e-Books with certain features can impact an emergent reader's literacy level in a positive way in comparison to just printed text. However, the majority of these studies are done with educational e-Books that have been specifically designed for their usage in a classroom setting. When one begins to review studies like Korat & Shamir (2004), and de Jong & Bus (2003) which examined commercially available e-Books, you start looking for some e-books that appear to overdo features. Possible reasoning for this exaggeration of features could be an effort to make the reading experience more entertaining or simply to make the product more marketable. It becomes a fine line between e-Books looking like a game rather than an educational task. We do not want to promote passive reading of the text nor do we want these to create distractions to lure the child away from the text, thus impeding their comprehension.

### **Implications for Future Teaching**

The findings from this study will inform my teaching and other literacy educators in numerous ways. As we continue to look for ways to incorporate technology into our classrooms e-Books can be strongly considered as a way to meet this integration. As with any new resource, this will have to be done through careful instruction and modeling so that students are benefitting from the resource rather than misusing it.

The style of reading feature of an e-Book sets up nicely to fit into a center type activity for children or even part of *The Daily Five* routine. Students can listen to

a story being read to them as part of a listening station. This may be by an assigned narrator or a fellow classmate who utilized the “read and record” feature. Students could also read to themselves or to a friend using the “read to myself” feature.

Vocabulary centers can be established where students use the menu bar to look up words they do not know. As well as centers where students read themed books like a non-fiction text about desert animals to gather facts can be created. The possibilities can be endless with the creative mind of a teacher. Again, this will take time to teach students how to not only use the device and each feature but also to establish routines and procedures. If done though, over time, e-Books can be a fun, motivational and educational tool to use during literacy instruction for both emergent and experienced readers alike.

### **Recommendations for Future Researchers**

One area to consider for further study would be the relationship between the use of e-Books and the effects on emergent readers’ fluency. Fluency is a hot topic in the field of literacy. It is believed to be a key component in a student’s comprehension. If a child cannot read fluently then comprehension is likely to suffer as a result. E-Books would seem like a possible tool to help struggling or emergent readers gain fluency. Children could use e-Books to listen to a story being read at a fluid rate with appropriate emotion and expression. Although my study did not include this feature, in the research I conducted I discovered one of the common features of e-Books is the ability to have the text be highlighted as it is read. This helps one-to-one correspondence and word recognition. Using this feature along with

having the e-Book read aloud to a child would be an excellent way to promote fluency.

This study looked at how the same features that may have an impact on fluency, affected emergent readers motivation, reading comprehension, and decoding abilities. It would be interesting to see if the concept of using an e-Book and its features for literacy instruction play a role in supporting or hindering an emergent reader's fluency level.

Limitations in this study include a small sample size of students at the first grade level. Only two students served as the focal students of this study. This inquiry did not take into consideration students at other grade levels who may be considered emergent readers, and therefore cannot be generalized across ages and grade levels. The research also took place in a suburban district, so rural and urban contexts were not studied. Only one type of electronic reading device was explored with only some of its features being utilized during this study.



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## Appendices

### Appendix A : Observation Notes

Observation Notes

Date: \_\_\_\_\_

Activity: \_\_\_\_\_

Student: \_\_\_\_\_

















Observations	Interpretations

## Appendix B: Attitude Survey

















### Elementary Reading Attitude Survey

School \_\_\_\_\_ Grade \_\_\_\_\_ Name \_\_\_\_\_

















Please circle the picture that describes how you feel when you read a book.

1.	How do you feel when you read a book on a rainy Saturday?			
				
2.	How do you feel when you read a book in school during free time?			
				
3.	How do you feel about reading for fun at home?			
				
4.	How do you feel about getting a book for a present?			
				

















Please circle the picture that describes how you feel when you read a book.

5.	How do you feel about spending free time reading a book?			
				
6.	How do you feel about starting a new book?			
				
7.	How do you feel about reading during summer vacation?			
				
8.	How do you feel about reading instead of playing?			
				













Please circle the picture that describes how you feel when you read a book.

9.	How do you feel about going to a bookstore?			
				
10.	How do you feel about reading different kinds of books?			
				
11.	How do you feel when a teacher asks you questions about what you read?			
				
12.	How do you feel about reading workbook pages and worksheets?			
				

Please circle the picture that describes how you feel when you read a book.

13.	How do you feel about reading in school?			
				
14.	How do you feel about reading your school books?			
				
15.	How do you feel about learning from a book?			
				
16.	How do you feel when it's time for reading in class?			
				

Please circle the picture that describes how you feel when you read a book.

17.	How do you feel about stories you read in reading class?			
				
18.	How do you feel when you read out loud in class?			
				
19.	How do you feel about using a dictionary?			
				
20.	How do you feel about taking a reading test?			
	